

Regarding the 35 USC 102(b) rejection of claims 1-2, 4-5, 7-9, 11, 13-15, 17-18, 20-21, and 23-24 over Furukawa (JP 5-87760): Withdrawal of the 35 USC 102(b) grounds for rejection is requested for the three following reasons:

1) In regards to Furukawa, there is not the slightest hint in the Furukawa disclosure of the dome cap or sensor having a snap-through or threshold tactile feedback as is presently claimed and as is clearly described in the present specification. Also, there is not the slightest hint at desirability of snap-through or threshold tactile feedback in Furukawa. The Examiner states "It is assumed the device is a "snap-through device...". Based on a study of the Furukawa disclosure by Applicant, Furukawa is clearly not a snap-through device providing a snap tactile sensation to a user when a threshold is crossed. As accurately noted by the Examiner, Furukawa does in fact include resilient return or restoring structure, but all springs do return or restore with release of pressure, and certainly not all springs (most don't) include a threshold snap-through tactile feedback to the user. The Examiner states he assumes the device of Furukawa is a snap-through device as claimed since it has a threshold of finger pressure below which the device returns to its normal upwards state absent the finger pressure, however, as far as Applicant can understand, this is a description by the Examiner of nothing more than resilient return on a depressible surface, which is clearly not what the current claims refer to with the use of terms such as "snap-through tactile feedback" and the like. For example, from page 10 line 25 through page 11 line 4 thereof in the instant specification it is stated:

"Dome-cap 16 when pressed against sufficiently to bow toward second conductive element 14 has resistance to moving, the resistance begins relatively low and increases toward a snap-through threshold wherein at the snap-through threshold dome-cap 16 "snaps-through" and moves further downward. A snap or click

(tactile sensation) can be felt and in some applications heard (user discernable tactile feedback) as dome-cap 16 snaps-through its threshold. The snap-through dome-cap 16 being of resilient design, returns to a raised position off of second conductive element 14 when actuator 18 is no longer depressed, and thus the switch or sensor is a momentary-On type. The snap-through dome-cap 16 typically returns to a raised position off of second conductive element 14 and creates a user discernable tactile feedback while moving to the raised position."

For the Examiner to "assume" Furukawa has a snap-through device having a threshold snap in a downward depressive stroke which is tactile to the user is wholly unsupported and purely negative speculation against Applicant's claimed invention to the harm of Applicant and against the spirit of Article 1 Section 8 of the United States constitution. Such assuming is nothing more than reading limitations into the relied upon reference. The reading in of limitations into a relied upon reference in order that the single reference anticipate the claimed invention for supporting a 35 USC 102(b) rejection is not proper, is not fair to Applicant, and is not permitted. Title 35 USC 102 states:

"A person shall be entitled to a patent unless--"

"(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States".

"Reading in" a feature which is not present in the relied upon printed publication, when the printed publication does not describe the invention, is not a proper basis for a 102(b) rejection. Thus, withdrawal of the 35 USC 102(b) grounds for rejection is respectfully requested and is in order.

2) Threshold or snap-through tactile feedback at some point in a downward stroke wherein the downward stroke continues after the tactile snap in a dome cap structure is a feature which, if desired, must be carefully structurally designed into the

arrangement as those skilled in the art appreciate. Careful designing or engineering in elastic legs and dome structures and other associated parts is required to achieve a threshold snap-through tactile feedback since a threshold snap-through tactile feedback is not an inherent feature of a dome cap or sensor. Threshold or snap-through tactile feedback in a dome cap sensor is not something, when desired, which is left to happenstance of the structural arrangement, but rather, is carefully designed into the structures. Spacing between the underside of the pill carried by the dome cap, and the surface against which the pill is pressed at the lower end of a depressive stroke, as in the Furukawa device, is but one of many important considerations which must be taken into account if one wishes a dome cap sensor to provide a threshold snap-through tactile feedback to be felt by a user. Furukawa does not hint at structure or even the desirability of threshold snap-through tactile feedback to be felt by a user. Thus again, withdrawal of the 35 USC 102(b) grounds for rejection is respectfully requested and is in order.

3) Not only does Furukawa completely fail to even hint at structure or even the desirability of threshold snap-through tactile feedback to be felt by a user, but Furukawa teaches away from structuring which would provide threshold snap-through tactile feedback. In Furukawa Fig. 2, it can be seen when compared to Furukawa Fig. 3, that element "33" in Fig. 2 narrows the spacing between the dome cap carried pill "33" and the conductors 7, the narrowing of the spacing being the opposite structural arrangement which would normally be applied if one desired the dome cap to be able to be depressed to a point of crossing a threshold snap-through before the depressive stroke has bottomed-out. Furukawa teaches away from structuring which would provide threshold snap-through tactile feedback.

Thus, withdrawal of the 35 USC 102(b) ground for rejection is respectfully requested and is in order for the above three detailed reasons, any one of which alone is sufficient to cause

withdrawal of the 35 USC 102 rejection of the claims over Furukawa.

Regarding the 35 USC 103(a) rejection of claims 1-2 and 7-8 over Furukawa in view of Kramer (US 5,164,697): Keeping in mind the above regarding that which is clearly not in Furukawa, and further considering that there is no legally recognizable heart of the invention as stated by the U.S. Court of Appeals for the Federal Circuit in Para-Ordanance Manufacturing, Inc. v. SGS Importers International, Inc. Decided Dec. 28, 1995 with the statement:

... "Additionally, when determining obviousness, the claimed invention should be considered as a whole, there is no legally recognizable "heart" of the invention."

Applicant strongly disagrees that claims 1-2 and 7-8 are obvious over Furukawa in view of Kramer (US 5,164,697): Firstly, Furukawa neither describes the threshold snap-through tactile feedback, nor indicates the desirability thereof. Secondly, Furukawa teaches or structures away from threshold snap-through tactile feedback as above discussed. The addition of the actuator and housing structures of Kramer do nothing to solve these deficiencies nor are the two references and parts or features of Furukawa and Kramer even properly combined.

Clearly, it is only the Examiner, not the relied upon references, making the suggestion to combine the references and or specific features thereof to achieve the desireable and valuable Progress which is actually and factually provided by the instant invention. The Examiner is formulating the 103 obviousness grounds for rejection solely based upon the benefit of hindsight gained from an understanding of Applicant's disclosure, and not based on what is actually in the relied upon references. Hindsight is clearly prohibited as a basis for forming a 35 USC 103 rejection, and for sound reasoning, the

reasoning including that a hindsight based rejection in effect uses that which only the inventor taught against its teacher, the inventor. Furthermore, "at the time the invention was made" in the 35 USC 103(a) statute prohibits that which is not "prior" to the instant invention from being used as a basis for rejection. An Inventor's invention occurs "at the time the invention was made" and not "prior" thereto, therefore, the use of hindsight based on the current invention in a 103 based rejection is clearly prohibited. See *In re Dembiczak* 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). The use of such hindsight cannot be used to properly support a finding of obviousness. As stated in *In re Dembiczak* by Judge Clevenger: (Applicant added the underlining for emphasis)

... "Our analysis begins in the text of section 103 quoted above, with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight," see *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 873, 228 USPQ 90, 98 (Fed. Cir. 1985), overruled on other grounds by *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 46 USPQ2d 1097 (Fed. Cir. 1998), when analyzing the patentability of claims pursuant to that section. Measuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See, e.g., *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540,

1553, 220 UPSQ 303, 313 (Fed. Cir. 1983).  
Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." Id.

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion

"essential" to avoid hindsight); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also Graham, 383 U.S. at 18, 148 USPQ at 467 ("strict observance" of factual predicates to obviousness conclusion required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."). In this case, the Board fell into the hindsight trap.

We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg. v. SGS Imports Intern., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), although "the

suggestion more often comes from the teachings of the pertinent references," Rouffet, 149 F.3d at 1355, 47 USPQ2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., C.R. Bard, 157 F.3d at 1352, 48 USPQ2d at 1232. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." E.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact."); In re Sichert, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977) ("The examiner's conclusory statement that the specification does not teach the best mode of using the invention is unaccompanied by evidence or reasoning and is entirely inadequate to support the rejection."). In addition to demonstrating the propriety of an obviousness analysis, particular factual findings regarding the suggestion, teaching, or motivation to combine serve a number of important purposes, including: (1) clear explication of the position adopted by the Examiner and the Board; (2) identification of the factual disputes, if any, between the applicant and the Board; and (3) facilitation of review on appeal. Here, however, the Board did not make particular findings regarding the locus of the suggestion, teaching, or motivation to



combine the prior art references.

.... To the contrary, the obviousness analysis in the Board's decision is limited to a discussion of the ways that the multiple prior art references can be combined to read on the claimed invention. For example, the Board finds that the Holiday bag reference depicts a "premanufactured orange" bag material, see Dembiczak, slip op. at 21, finds that Shapiro teaches the use of paper bags in various sizes, including "large", see id. at 22-23, and concludes that the substitution of orange plastic for the crepe paper of Holiday and the paper bags of Shapiro would be an obvious design choice, see id. at 24. Yet this reference-by-reference, limitation-by-limitation analysis fails to demonstrate how the Holiday and Shapiro references teach or suggest their combination with the conventional trash or lawn bags to yield the claimed invention. See Rouffet, 149 F.3d at 1357, 47 USPQ2d at 1459 (noting Board's failure to explain, when analyzing the prior art, "what specific understanding or technical principle . . . would have suggested the combination"). Because we do not discern any finding by the Board that there was a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Board's conclusion of obviousness, as a matter of law, cannot stand. See C.R. Bard, 157 F.3d at 1352, 48 USPQ2d at 1232; Rouffet, 149 F.3d at 1359, 47 USPQ2d at 1459; Fritch,

972 F.2d at 1265, 23 USPQ2d at 1783; Fine,  
837 F.2d at 1075, 5 USPQ2d at 1600; Ashland  
Oil, 776 F.2d at 297, 227 USPQ at 667."

(End quotes from In re Dembiczak)

It is the instant invention that factually provides desirable and valuable Progress in the Art and without any suggestion to do so in the relied upon references. The instant invention clearly provides Progress in the Useful Art, the very type of Progress addressed by that written by our Founding Fathers in Article I Section 8 of the Constitution of the United States of America wherein it states:

"TO PROMOTE THE PROGRESS OF SCIENCE AND USEFUL ARTS, BY SECURING FOR LIMITED TIMES TO AUTHORS AND INVENTORS THE EXCLUSIVE RIGHT TO THEIR RESPECTIVE WRITINGS AND DISCOVERIES;".

The present invention of claims 1-24 is Applicant's Discovery. The invention clearly provides Progress in a Useful Art, there is no reason as to why in the future such invention will not be widely employed to the benefit of all using the invention, and the invention is not taught or fairly suggested by any proper combination of related prior art references. Therefore, the withdrawal of the double patenting, the 35 102(b) and the 35 USC 103 (a) rejection is requested in view of the above, and allowance of claims 1-24 is very respectfully requested.

I believe my application is in condition for allowance and respectfully request the Examiner examine the application in view of the herein remarks / amendments, and find all claims allowable. Thank you.

I hereby declare that I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled ANALOG SENSOR(S) WITH SNAP-THROUGH TACTILE FEEDBACK; I further declare that no new matter has been entered; and I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be